

U.S. Department of Commerce, Patent and Trademark Office LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)				Docket No.: 2287/C03/PVD/PS		Serial No.: unknown	
				Applicants: Imran Hashim, Tony Chiang and Barry L. Chin			
				Filing Date: herewith		Group:	

U.S. Patent Citations							
*Examiner Initial	Class	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
C	AA	966,634	10/12/99	Inohara et al	2		
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Citations						Translation	
Document Number	Date	Country	Class	Subclass	Yes	No	

OTHER	(Citing Author, Title, Date, Pertinent Pages, Etc.)

Examiner C.	Date Considered 6.16.04
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CL	874,493	10/17/89	Pan			
	874,494	10/17/89	Ohmi			
	91,112	01/02/90	Wong			
	15,806	04/10/90	Lardon et al.			
	62,060	10/09/90	Sliwa et al.			
	63,239	10/16/90	Shimamura et al.			
	68,374	11/06/90	Tsukada et al.			
	99,096	03/12/91	Nihei			
	69,770	12/03/91	Glocker			
	78,847	01/07/92	Grosman et al.			
CL	24,014	06/23/92	Foo et al.			

Foreign Documents					Translation	
Document Number	Date	Country	Class	Subclass	Yes	No

Other References	(Cite Author, Title, Date, Pertinent Pages, Etc.)
CL	ni et al., "Sputter-Etching Planarization for Multilevel Metallization", March 1983, J. Electrochem. Soc., No. 3, pp. 645-648
CL	ki, "Microwave Plasma Etching", 1984, Central Research Laboratory, Hitachi Ltd., pp. 953-957
CL	no, "Reactive Ion-Beam Etching and Plasma Deposition Techniques Using Electron cyclotron Resonance", 1985, Aisugi Electrical Communication Laboratory, pp. 75-117

Examiner	Date Considered
	6.16.04

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Commerce, Patent and Trademark Office (1) PRIOR ART CITED BY APPLICANT (several sheets if necessary)	Docket No.: 2287/C03/PVD/PS	Serial No.: unknown
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	Filing Date: herewith	Group: Unknown

*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
CL	0,028	06/30/92	Hurwitt et al.			
	0,739	01/12/93	Barnes et al.			
	0,640	06/22/93	Sato			
	0,264	12/14/93	Andideh et al.			
	0,972	12/21/93	Kwok et al.			
	0,266	04/12/94	Grabarz et al.			
	0,139	04/12/94	Mark			
	0,793	05/03/94	Taguchi et al.			
	0,600	09/13/94	Nieh et al.			
	0,479	09/27/94	Collins et al.			
CL	0,712	10/11/94	Ho et al.			

Foreign References	Translation						
	Document Number	Date	Country	Class	Subclass	Yes	No

Other References	Author, Title, Date, Pertinent Pages, Etc.)
CL	al., Planar Deposition of Aluminum by RF/DC Sputtering with RF Bias", June, 1985, J.Electrochem.Soc., Sci. & Tech., Vol. 132, No. 6, pp. 1466-1471
CL	by MTi", November, 1985, Semiconductor International
CL	et al., "Planarization by Radio-Frequency Bias Sputtering of Aluminum as Studied Experimentally and after Simulation", Nov./Dec. 1985, J.Vac.Sci.Technol.A3(6), pp. 2167-2171

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U.S. Patent Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
042	12/06/94	Ong			
611	01/09/96	Helmer et al.			
011	04/23/96	Okamura et al.			
150	04/30/96	Bourez et al.			
399	05/14/96	Balconi-Lamica et al.			
460	07/09/96	Tseng et al.			
974	12/17/96	Sellers			
974	12/17/96	Shrinkle			
241	12/31/96	Lantsman			
269	01/07/97	Arami et al.			
96	03/25/97	Kurino et al.			

Foreign						Translation	
Patent Number	Date	Country	Class	Subclass	Yes	No	

OTHER REFERENCES	(Author, Title, Date, Pertinent Pages, Etc.) Staff, MTI Thin Film Equipment Division, "Planarizing Enhancement Mode "Sputtering...Plus"(TM) for Aluminum in Sypherline(TM)", April, 1986, Applications Note, Vol. 1, No. 1 et al., "Significant Improvement in Step Coverage Using Bias Sputtered Aluminum", May/June, 1986, Technol. A4(3), pp. 457-460 et al., "Fundamental Characteristics of Built-In High-Frequency Coil-Type Sputtering Apparatus", 1989, J.Vac.Sci.Technol.A, Vol. 7, No. 2, pp. 151-158
Examiner	Date Considered <div style="text-align: center; font-size: 1.2em;">6.16.04</div>
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*Examiner Initial	Patent Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
C	57	06/17/97	Xu			
	865	07/29/97	Sellers			
	32	08/05/97	Gardner			
	87	10/07/97	Zhao et al.			
	51	11/11/97	Pourrezai et al.			
	39	11/11/97	Bourez et al.			
	13	02/17/98	Drummond et al.			
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	13	06/23/98	Sellers			
	17	07/14/98	Xu et al.			
C	17	09/15/98	Givens et al.			

Translation						
Patent Number	Date	Country	Class	Subclass	Yes	No

Author, Title, Date, Pertinent Pages, Etc.) et al., "Dense Plasma Production and Film Deposition by New High-Rate Sputtering Using an Electric /Aug. 1989, J.Vac.Sci.Technol A7(4), pp. 2651-2657 Magnetically Confined and Electron Cyclotron Resonance Heated Plasma Machine for Coating and Ion ification Use", May/June 1991, J.Vac.Sci.Technol.A., pp. 466-473 imbalanced Magnetrons and New Sputtering Systems with Enhanced Plasma Ionization", May/June 1991, echnol.A9(3), pp. 1171-1177	Date Considered 6.16.04
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U.S. Department of Commerce, Patent and Trademark Office LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)	Docket No.: 2287/CQ3/PVD/PS	Serial No.: unknown
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	Filing Date: Herewith	Group:

U.S. Patent Documents							
*Examiner Initial		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
CL	AA	4,756,810	07/12/88	Lamont, Jr. et al.			
CL	AB	4,816,126	03/28/89	Kamoshida et al.			
CL	AC	6,110,821	08/29/00	Kohara et al.			
CL	AD	6,291,885 B1	09/18/01	Cabral, Jr. et al.			
CL	AE	6,375,810 B2	04/23/02	Hong			
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Foreign Patent Documents							Translation	
		Document Number	Date	Country	Class	Subclass	Yes	No
CL	AL	JP61261472A2	11/19/86	JP			X Abstract Only	
CL	AM	JP4030421A2	02/03/92	JP			X Abstract Only	
CL	AN	EP 0 202 572 B1	12/15/93	EP			X	
	AO							
	AP							

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CL	AR	Fusen Chen et al., U.S. Patent Application No. 08/856,116, filed May 14, 1997, entitled "Reliability Barrier Integration for CU Application"
	AS	
	AT	

Examiner <i>calomlee</i>	Date Considered 6.16.04
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CL	410,774	11/12/68	Barson et al.			
	358,338	11/09/82	Downey et al.			
	565,601	01/21/86	Kakehi et al.			
	581,653	07/21/87	Purdes et al.			
	732,761	03/22/88	Machida et al.			
	756,801	07/12/88	Jokinen et al.			
	767,496	08/30/88	Hieber			
	793,895	12/27/88	Kaanta et al.			
	810,335	03/07/89	Hieber			
	824,546	04/25/89	Ohmi			
CL	865,712	09/12/89	Mintz			

Foreign Documents					Translation	
Document Number	Date	Country	Class	Subclass	Yes	No
CL 8456 A2		EP			X	
CL 8502 A2		EP			X	
CL 84164		JP			Abstract Only	
CL 8577 A2		EP			X	
CL 8119A2		JP			Abstract Only	

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CL	Big et al., "RF Sputtering System with Variable Substrate Bias", July 1970, IBM Technical Disclosure Bulletin, Vol. 13, No. 2, pp. 323-324
CL	Chel, "Pressure Control of RF Bias for Sputtering", December 1976, Rev. Sci. Instrum., Vol. 47, No. 12, pp. 557
CL	Ki et al., "Microwave Plasma Etching", November, 1997, Japanese Journal of Applied Physics, Vol. 16, No. 1979-1984
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Foreign Patent Documents							
							Translation
C	AF	5,262,354	11/16/93	Cote et al.			
	AG	5,376,584	12/27/94	Agarwala			
	AC	5,486,492	01/23/96	Yamamoto et al.			
	AH	5,585,673	12/17/96	Joshi et al.			
	AI	5,612,254	03/18/97	Mu et al.			
	AJ	5,693,563	12/02/97	Teong			
	AK	5,731,245	03/24/98	Joshi et al.			
	AD	5,744,376	04/28/98	Chan et al.			
	AE	5,759,906	07/1998	Lou			
	AA	5,904,565	05/18/99	Nguyen et al.			
C	AB	5,933,753	08/03/99	Simon et al.			
		Document Number	Date	Country	Class	Subclass	Yes No
C	AL	0 798 778 A2	10/01/97	EP			X
C	AM	0 892 428 A2	01/20/99	EP			X
C	AN	0 788 160 A3	06/16/99	EP			X
	AO						
	AP						

OTHER ART (including Author, Title, Date, Pertinent Pages, Etc.)	
C	AR upoint Detection Method for Ion Etching of Material Having a Titanium Nitride Underlayer", RESEARCH SCLOSURE, February 1991, Number 322, (C) Kenneth Mason Publications Ltd, England
C	AS vrellus Damascus Home Page, "12 Steps of Damascus"
	AT

Examiner <i>calvin a</i>	Date Considered 6.16.04
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